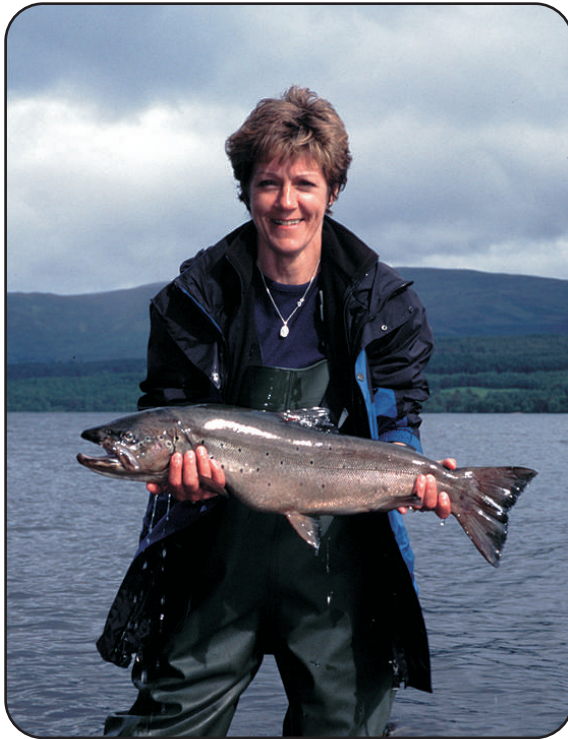




Ferox Trout



A recaptured ferox trout of 4.53kg (10lb) about to be returned to Loch Rannoch.

Description and status

Ferox is a widely used term to describe large, predatory brown trout living in freshwater highland lochs. Individual ferox differ widely in size, shape, colour and spot patterning. The condition of individual fish is also highly variable and depends on factors such as sex, age, time of year and whether they have spawned previously.

In some lochs, ferox can be shown to be genetically distinct from the other brown trout that are present. Indeed, the ferox was once classified as a separate species – *Salmo ferox* – though this is no longer the case. At present, the ferox life history is regarded as one of a number of life strategies adopted by the brown trout (*Salmo trutta*), although some scientists argue on genetic grounds that the current view should be re-assessed.

Feeding

Small brown trout, including young ferox feed on insects and other invertebrates. Ferox, however, becomes clearly distinguishable from other brown trout, when it reaches a length of about 35 cm and begins to feed mostly on other fish. Although ferox do eat smaller brown trout, studies of their stomach contents have revealed a marked preference for Arctic charr (*Salvelinus alpinus*) which abound in most of the lochs where ferox occur.



Ferox trout with Arctic charr.

Size and longevity

The growth rings on the scales of ferox show that the switch to a fish diet results in a rapid increase in size. Ferox can grow to over a metre in length and live for many years. The current UK rod caught record stands at 14.4 kg (31lb 12oz) – a fish from Loch Awe in Argyllshire. In the UK, the oldest recorded ferox trout was 23 years of age – a fish from Loch Killin in Inverness-shire.



UK rod caught record brown trout.



Ferox are rare

Like other large predators, ferox are relatively rare – only a tiny proportion of the brown trout in a loch will become large ferox trout. They are also difficult to catch. Both these factors make ferox very hard to study, and much more remains to be discovered about their life history and ecology.



Loch Garry in Perthshire where intensive studies of ferox trout have been carried out.

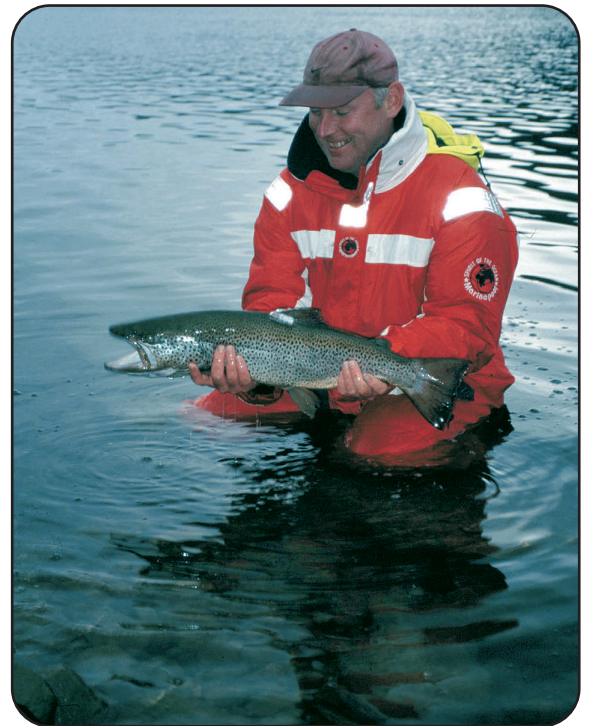
Ferox research

Since 1994, the ages and growth rates of ferox trout have been documented as part of a 'catch and release' programme carried out on Loch Rannoch in Perthshire. In all, 50 fish of more than 1 kg in weight have been captured and nine individuals have been recaptured on one or more occasions. This suggests that ferox can survive capture if they are handled with care and continue to grow well. One fish tagged in September 1994 at 1.59kg (3lb-8oz) was subsequently recaptured in May 1998, having quadrupled its weight to 6.46 kg (14lb 4oz). The relatively high proportion of recaptures from Loch Rannoch indicates that the loch contains only a small number of large ferox.

A tracking study using radio and depth tags has been carried out in Loch Garry in Perthshire to examine the behaviour and movements of large ferox. The study has revealed that they do not have a discrete home range, but roam throughout the loch in daylight hours in search of prey. At night, the fish become less active and move closer to the shore. Data recovered from the depth tags show the ferox undertaking deep dives during daylight hours presumably to capture Arctic charr.

Management and conservation

Ferox trout are present in most of the large Scottish lochs and are becoming highly prized as a target species by a small band of dedicated, specialist anglers. As a result, angling pressure has increased over recent years. Ferox are relatively rare and, in some locations at least, genetically distinct, and both factors pose special problems for management which must be addressed. Research on ferox is only in its early stages and a successful conservation strategy will require a much fuller understanding of the ecology of this fascinating fish. However, everything that has been discovered so far indicates that catch and release will be among the most important measures for ensuring a sustainable future for an unusual fishery.



A ferox trout fitted with a data storage tag, about to be released back into Loch Garry.

Further Information contact:

Alastair Thorne: thornea@marlab.ac.uk
Alisdair MacDonald: macdonaldaim@marlab.ac.uk

FW24|04|05